

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, DC 20554

In the Matter of	)	
	)	
Review of the Commission's Rules Governing	)	WT Docket No. 17-200
the 896-901/935-940 MHz Band	)	
	)	
Realignment of the 896-901/935-940 MHz	)	RM-11738
Band to Create a Private Enterprise Broadband	)	(Terminated)
Allocation	)	
	)	
Amendment of the Commission's Rules to	)	RM-11755
Allow for Specialized Mobile Radio Services	)	(Terminated)
Over 900 MHz Business/Industrial Land	)	
Transportation Frequencies	)	

**FURTHER COMMENTS OF SENSUS USA INC.**

Sensus USA Inc. ("Sensus") respectfully submits these further comments in response to the Commission's Notice of Inquiry ("*NOI*") in the above-referenced proceeding.<sup>1</sup> Sensus hereby states that it supports the proposal set forth by the Enterprise Wireless Alliance ("EWA") and pdvWireless, Inc. (collectively "EWA/PDV") in their Further Comments submitted to the FCC on May 1, 2018 (the "Revised PDV Proposal") for the specific reasons set forth below. As is outlined in more detail below, Sensus believes that the Revised PDV Proposal addresses Sensus' main concerns related to permitting broadband operations in the 900 MHz band.

**Background**

In its comments on the *NOI*, Sensus urged the Commission not to move forward, or to at least proceed cautiously, on any proposals in the instant proceeding to permit broadband

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<sup>1</sup> *Review of the Commission's Rules Governing the 896-901/935-940 MHz Band*, Notice of Inquiry, 32 FCC Rcd 6421 (2017).

operations in the 896-901/935-940 MHz (“900 MHz”) band.<sup>2</sup> Sensus explained that broadband operations at 900 MHz would pose a risk of harmful interference to critical infrastructure industry (“CII”) operations in the adjacent narrowband PCS (“NPCS”) spectrum at 901-902/940-941 MHz (the “NPCS band”).<sup>3</sup> Sensus advocated that if the Commission proceeded to a rulemaking on facilitating broadband operations at 900 MHz, then it should impose a guard band between 900 MHz and NPCS band, similar to what it has done in the 700 MHz public safety spectrum, and to adopt technical rules adequate to protect adjacent NPCS users from harmful interference caused by broadband operation at 900 MHz.<sup>4</sup> Sensus also noted that it was in communication with pdvWireless, Inc. (“PDV”) and was working to try to narrow the issues.

On May 1, 2018, the Enterprise Wireless Alliance (“EWA”) and pdvWireless, Inc. (collectively “EWA/PDV”) submitted a revised proposal (the “Revised PDV Proposal”) to, among other things, “[s]hift the PEBB [Private Enterprise Broadband]” allocation down 400 kHz to 897.600-900.600/936.600-939.600” in order to move the broadband allocation away from the NPCS band, effectively creating a 400 kHz PLMR narrowband segment acting as a guard band between the broadband allocation and the NPCS band, and to “[a]dopt an asymmetrical emission mask by adjusting the uplink (897.600-900.600 MHz) mask to the standard limit of  $43 + 10 \log (P)$  dB while retaining the  $50 + 10 \log (P)$  dB mask for downlink (936.600-939.600 MHz)

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<sup>2</sup> See Comments of Sensus USA Inc., WT Docket No. 17-200, at 2 (filed Oct. 2, 2017) (“Sensus Comments”).

<sup>3</sup> Sensus has developed an innovative and distinctive network communications technology called FlexNet that operates in the NPCS band to provide utilities with secure and reliable connectivity solutions supporting multiple applications, including, for example, advanced metering infrastructure (“AMI”), distribution automation and monitoring, demand response, and equipment monitoring and control. *Id.* at 3. Presently, Sensus has approximately 1200 customers that operate FlexNet systems in the NPCS band, most of which are electric, natural gas and water distribution utilities. There are more than 15 million FlexNet endpoints operating on NPCS channels throughout the continental United States. Accordingly, Sensus and its FlexNet customers would be directly affected by broadband operations in the adjacent 900 MHz band. *Id.* at 4.

<sup>4</sup> Reply Comments of Sensus USA Inc. WT Docket No. 17-200 at Executive Summary (filed Nov 1, 2017).

spectrum” in order to address the legitimate risk of harmful interference to adjacent NPCS operations.<sup>5</sup> Sensus had performed tests on the impact of an adjacent LTE system. Based on those test results, the Revised PDV Proposal would appear to provide adequate protection.

Effective as of May 11, 2018, Sensus and PDV entered into a written contract to help the parties work through any interference between the PEBB allocation and the NPCS band, including narrowband transition issues.

### **Discussion**

Sensus is withdrawing its opposition to the Revised PDV Proposal for four reasons. First, the Revised PDV Proposal would shift the PEBB band down 400 kHz, effectively creating a 400 kHz PLMR guard band between broadband PEBB operations and Sensus’ NPCS operations. Second, the Revised PDV Proposal would implement an asymmetrical emission mask, as described above, that would be more protective of the NPCS operation. Third, Sensus and PDV have reached agreement about cooperation with each other on interference issues. Sensus believes it has a mechanism available to address with PDV these types of issues, should they arise. Fourth, the Revised PDV Proposal proposes only cosmetic and conforming changes to Part 90 rules governing narrowband operations in the 400 kHz PLMR guard band.

In other words, as explained above, in its prior Comments, Sensus advocated adoption of a guard band and technical rules to protect incumbent NPCS users in the adjacent band from the harmful interference s broadband operations in the 900 MHz band would cause. The Revised PDV Proposal acknowledges that these concerns are legitimate. More importantly, by shifting the broadband allocation down 400 kHz and placing PLMR channels in the top portion of the 900 MHz band, the Revised PDV Proposal effectively creates a guard band to reduce adjacent-channel issues, assuming that the use of the 400 kHz PLMR channels remains substantially the same as it is now.

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<sup>5</sup> Further Comments of Enterprise Wireless Alliance and pdvWireless, Inc. WT Docket No. 17-200 at 3-4 (filed May 1, 2018) (“PDV Further Comments”).

This additional 400 kHz of PLMR channels combined with the 150 kHz of guard band inherent in LTE operations puts an effective 550 kHz of space between the broadband operation and the incumbent NPCS users. Moreover, the Revised PDV Proposal includes technical rules, particularly a stringent asymmetrical emission mask, to further protect NPCS users from out-of-band emissions.

Sensus thus supports the Revised PDV Proposal given that it addresses Sensus' primary concerns. Under the Revised PDV Proposal the narrowband operations in the 400 kilohertz of spectrum that is immediately adjacent to Sensus' operations would be subject to the same rules and practice in the future as they are now. If changed narrowband operations in the adjacent channels, however, were to suddenly start generating harmful interference, it would still be harmful, the same as if the broadband PEBB operation had generated the interference. Sensus' support of the Revised PDV Proposal is predicated on the fact that the use of, and noise generated from this 400 kilohertz of spectrum, would remain about the same as now.

In conclusion, as an incumbent, Sensus has a duty to protect its licensed operations from harmful interference. In addition, Sensus has also engaged with the EWA/PDV camp to attempt to reach an amicable resolution. Sensus trusts that the Revised PDV Proposal, combined with this statement of Sensus' support and the caveats included herein, will help to pave the way for a good solution.

Respectfully submitted,

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